

Bibliometrics in circular design visual representation



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Abstract

The main goal of this poster it represents graphically the evolution made in Circular Design Research (CDR) in Portugal and Worldwide. This research demonstrates that Portugal's representation (at the global level) in this area is residual, and the Netherlands assumes a position as the leader in CDR, having as its base the Database collected in Web of Science. The last 5 years represent 65% of all scientific knowledge produced in CDR, revealing the opportunity and relevance of the studies of Circular Economy in Design. Besides that, the data collected in RCAAP (Portuguese Open Access Scientific Repositories), Design has a strong position in CDR, but if you see the metrics in Web of Science the participation of Design in CDR is residual, contrary to fields like Engineering, Technology, and Environmental Sciences.

The methodology is based on data collected and analysed. We resort to Web of Science and use the term "Circular Design" in three different types of searches: Keywords, Topic and Abstract. We collect the Data and organize them in a spreadsheet and treat the data and organize them by Author, Year, Journal, Title, Affiliation, Country, and Area of Study. In the case of RCAAP because of the browse limitations (which don't allow us to find by Topic, Keywords and Abstract) and sample dimension, we expand the search for more 2 terms (Sustainable Design and Circular Economy – in Portuguese and English) doing the search by Topic. In the data organisation, we used the same parameters used in Web of Science search.

It's possible to conclude, based on Web of Science results that the Topic has more information entries (211), followed by Abstract (161) and Keywords (51). Findings make through Keywords it can be readied as the more important method of data collection in this type of analysis because create a direct relation in the real subject of the article. But, in the 3 types of searches, it's possible to establish coherence in the qualitative data analysed:

Netherlands is the most representative country in both searches and TUDelft the most representative University. Environmental Studies and Science Technology are represented in all searches as one of the most scientific productions in CDR. Design representation in Web of Science assumes a residual position Portugal is represented by 6 communications indexed by Web of Science.

In RCAAP database it concluded that only exist 14 PhD Thesis and 53 MSc Dissertations: Design has a representative position in Portugal in CDR, on par with Management and Engineering. The expression "Circular Economy" (in Portuguese and English) is the most expressive Keyword because of your thematic coverage. The PhD in Design in Portugal 2 they are made using the Methodology of Research for Design (based in Frayling). The temporal comparison between Web of Science and RCAAP shows us that is a similarity in growth and decrease in the same time spaces.